

Appl. No. 09/872,877
Amdt. Dated September 13, 2004
Reply to Office action of July 14, 2004
Attorney Docket No. P14975-US1
EUS/J/P/04-3204

REMARKS/ARGUMENTS

Claim Amendments

The Applicant has amended claims 2 and 15. Some of the amendments were to correct syntax and to clarify the language of the claims. Amendments to independent claims 2 and 15 are predominantly from the description of Figure 5. The Applicant respectfully submits that no new matter has been added by the amendments to the claims. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 103 (a)

Claims 2, 4-9, 11-12 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammer et al. (US 6,363,431 hereinafter Hammer) in view of Joensuu (US 5,867,788 hereinafter Joensuu). The Applicant respectfully traverses the rejection of these claims.

The Applicant's invention discloses a method and apparatus for provisioning SMS services when different SS7 signaling networks are in use, both for SMS termination to mobile units roaming in an SS7 network different than the MS's home network, and for receiving SMS messages from an SS7 network different from the MS network when the MS is roaming inside or outside of its home SS7 network. A Registration Notice (REGNOT) message is sent to the Home Location Register (HLR) and the message contains an SMS address of the MS. The HLR analyzes the SMS address to determine if a MSC of the roamed network is in a different SS7 network, i.e., a different country. Then the HLR compares the MSCIN country code with the country code in the calling party address of a requesting message center (MC). If there is no MSCIN then the MS is in the same SS7 network since all international SMS addresses have a MSCIN. (Page 5, Lines 6-24)

An smsreq response is completed by the HLR to provide SMS services by including in the response either the point code from the SMS address if the MC and the MSC are in the same country and the MSCIN if the MC and the MSC are not in the same country. At the time of the invention the MSCIN parameter was not used for SMS

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purposes and was mostly used for notifying the HLR that the MSC is International roaming capable. (Page 3, lines 24-27)

The Applicant respectfully directs the Examiner's attention to amended claim 2.

2. (Currently Amended) A method in a Home Location Register for Short Message Services (SMS) provisioning in a system including a Message Center (MC), and a Mobile Switching Center-Visitor Location Register (MSC-VLR), the method comprising the steps of:
receiving a Registration Notification (REGNOT) message, containing address information associated with a mobile station (MS), from the MSC-VLR,
storing a SMS address and Mobile Switching Center Identification (MSCIN) of the MS;
comparing a country code in the MSCIN with a country code in a calling party address of the MC;
determining whether the MC and the MSC share a common point code scheme;
selectively populating a SMS Request Return Result (smsreq) relative to said REGNOT message with a common point code from the SMS address if the MSC and MC share the same point code schemes or populating said smsreq with the MSCIN if the MSC and MC do not share the same point code scheme; and
forwarding said smsreq to said MC...(emphasis added)

The Applicant respectfully asserts that Hammer and Joensuu do not disclose (directly or inherently) at least the emphasized features present in amended claim 2 (similar features can be found in independent claim 15).

The Hammer reference appears to disclose a method and system for transferring messages between signaling systems in different wireless domains. As noted by the Office Action, Hammer does not disclose an smsreq relative to the SMS message utilizing a common point code and the MSCIN to locate the MS. However, the Joensuu reference was cited to supply the missing smsreq limitation.

The Joensuu reference appears to disclose a method to enable routing of MAP based signals from a European SS7 network (ITU-T) to a North American SS7 (ANSI) network. A serving MSC that receives an IMSI number from a mobile station roaming in the ITU-T network will pre-pend a country code associated with the ANSI network, to

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the IMSI number. The ITU-T network routes the signal to an international gateway, which, after receiving the signal, removes the pre-pended country code from the called number parameter and forwards the MAP based signal to the HLR. (Abstract)

In contrast to Joensuu, the present invention utilizes the HLR to perform all the steps of the claimed method including the steps for populating a smsreq. Joensuu utilizes the serving MSC to pre-pend the country code prior to sending a MAP (not a SMS signal) signal to an international gateway. Then the gateway strips the country code from the MAP signal. The Applicant's invention uses the standard information (point codes and MSCIN) provided in a REGNOT message to determine the "nationality" of the MS and the calling Message Center. The HLR then populates an smsreq to the MC identifying the MS. There is no country code prepended to the SMS signal and no stripping of codes from the signal. It is respectfully submitted that Joensuu does not address the above-identified deficiencies of Hammer with respect to the Applicant's invention. The Applicant respectfully requests withdrawal of the rejection of claim 2.

As between claim 2 and the Hammer and Joensuu references, the Applicant submits that amended independent claim 15 contains limitations analogous to those found in claim 2. For the above given reasons the Applicant respectfully requests the withdrawal of the rejection of claim 15. Claims 4-9 and 11-12 depend from amended claim 2 and recite further limitations in combination with the novel elements of claim 2. Therefore, the allowance of claims 2, 4-9, 11-12 and 15 is respectfully requested.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammer in view of Joensuu and further in view of Shmulevich et al. (US 6,515,985 hereinafter Shmulevich). The Applicant respectfully traverses the rejection of this claim. The Shmulevich reference is cited for the point code scheme according to the ITU format. However, Shmulevich fails to teach or suggest the novel limitations contained in claim 2, as discussed above, from which claim 10 depends. Therefore, the allowance of claim 10 is respectfully requested.

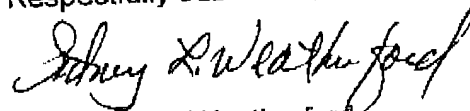
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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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